

**IN THE CLAIMS:**

Please **cancel** claims 4, 11 and 17 without prejudice.

Please **amend** the claims as follows:

1. (Currently amended) A method for cleaning a processing chamber comprising:  
removing impurities on a semiconductor substrate in the processing chamber with a  
plasma of a first gas including a hydrogen gas;  
removing the semiconductor substrate from the processing chamber; and  
etching the processing chamber with a plasma of a non-hydrogenous second gas  
consisting of argon to remove hydrogen from the processing chamber.

2. (Previously presented) The method of claim 1, wherein silicon oxide is removed  
from the semiconductor substrate in the processing chamber.

3. (Original) The method of claim 1, wherein the first gas includes the second gas.

4. (Canceled)

5. (Currently amended) The method of claim 3 4, wherein a flow rate ratio between  
the argon gas and the hydrogen gas in the first gas is about 1:0.8 to about 1:1.2.

6. (Original) The method of claim 1, wherein the impurities on the semiconductor  
substrate are removed at a temperature of about 450°C to about 550°C.

7. (currently amended) A method for cleaning a processing chamber comprising:

- positioning a semiconductor substrate on a stage in the processing chamber;
- vacuumizing the processing chamber;
- introducing a first gas into the processing chamber wherein the first gas includes an argon gas and a hydrogen gas;
- removing impurities on the semiconductor substrate with a plasma of the first gas;
- exhausting a gas from the processing chamber;
- removing the semiconductor substrate from the processing chamber;
- creating a vacuum in the processing chamber;
- introducing a non-hydrogenous second gas consisting of argon into the processing chamber; and
- etching the processing chamber with a plasma of the second gas consisting of argon to ~~remove hydrogen from the processing chamber.~~

8. (Original) The method of claim 7, further comprising a belljar is disposed over the stage, and a processing space provided by the belljar and the stage for positioning the semiconductor substrate.

9. (Previously presented) The method of claim 8, wherein at least one of the stage and the belljar is comprised of silicon oxide.

10. (Original) The method of claim 7, wherein the impurities on the semiconductor substrate are removed at a temperature of about 450°C to about 550°C.

11. (Canceled)

12. (Currently amended) The method of claim 7 ~~++~~, wherein the first gas includes the second gas and wherein a flow rate ratio between the argon gas and the hydrogen gas in the first gas is about 1:0.8 to about 1:1.2.

13. (Original) The method of claim 7, further comprising exhausting the second gas from the processing chamber after the etching of the processing chamber with the plasma of the second gas is completed.

14. (Original) The method of claim 7, wherein exhausting the gas from the processing chamber includes exhausting the first gas and other compounds generated during the removing of impurities on the semiconductor substrate that have been prevented from depositing on the processing chamber or the substrate.

15. (Currently amended) A method for manufacturing a semiconductor device comprising:

positioning a semiconductor substrate in a processing chamber;

removing impurities on the semiconductor substrate in the processing chamber with a plasma of a first gas including a hydrogen gas;

removing the semiconductor substrate from the processing chamber; and

etching the processing chamber with a plasma of a non-hydrogenous second gas consisting of argon ~~to remove hydrogen from the processing chamber.~~

16. (Original) The method of claim 15, wherein the first gas includes the second gas and the hydrogen gas.

17. (Canceled)

18. (Currently amended) The method of claim ~~16~~<sup>17</sup>, wherein a flow rate ratio between the argon gas and the hydrogen gas in the first gas is about 1:0.8 to about 1:1.2.

19. (Original) The method of claim 15, wherein the impurities on the semiconductor substrate are removed at a temperature of about 450°C to about 550°C.